

transfer of property, prior to repeal by Pub. L. 91-646, title II, §220(a)(10), Jan. 2, 1971, 84 Stat. 1903.

#### AMENDMENTS

2005—Pub. L. 109-59 amended section catchline and text generally, substituting provisions relating to establishment of a surface transportation-environmental cooperative research program, contents of program, administration of program by the Secretary, and grants and agreements with the National Academy of Sciences, for provisions relating to establishment of a surface transportation-environment cooperative research program, contents of program, establishment of an advisory board to recommend environmental and energy conservation research, technology, and technology transfer activities, and grants and agreements with the National Academy of Sciences.

### § 508. Transportation research and development strategic planning

#### (a) IN GENERAL.—

(1) DEVELOPMENT.—Not later than 1 year after the date of enactment of the SAFETEA-LU, the Secretary shall develop a 5-year transportation research and development strategic plan to guide Federal transportation research and development activities. This plan shall be consistent with section 306 of title 5, sections 1115 and 1116 of title 31, and any other research and development plan within the Department of Transportation.

(2) CONTENTS.—The strategic plan developed under paragraph (1) shall—

(A) describe the primary purposes of the transportation research and development program, which shall include, at a minimum—

- (i) reducing congestion and improving mobility;
- (ii) promoting safety;
- (iii) promoting security;
- (iv) protecting and enhancing the environment;
- (v) preserving the existing transportation system; and
- (vi) improving the durability and extending the life of transportation infrastructure;

(B) for each purpose, list the primary research and development topics that the Department intends to pursue to accomplish that purpose, which may include the fundamental research in the physical and natural sciences, applied research, technology development, and social science research intended for each topic; and

(C) for each research and development topic, describe—

- (i) the anticipated annual funding levels for the period covered by the strategic plan; and
- (ii) the additional information the Department expects to gain at the end of the period covered by the strategic plan as a result of the research and development in that topic area.

(3) CONSIDERATIONS.—In developing the strategic plan, the Secretary shall ensure that the plan—

(A) reflects input from a wide range of stakeholders;

(B) includes and integrates the research and development programs of all the Department's operating administrations, including aviation, transit, rail, and maritime; and

(C) takes into account how research and development by other Federal, State, private sector, and nonprofit institutions contributes to the achievement of the purposes identified under paragraph (2)(A), and avoids unnecessary duplication with these efforts.

(4) PERFORMANCE PLANS AND REPORTS.—In reports submitted under sections 1115 and 1116 of title 31, the Secretary shall include—

(A) a summary of the Federal transportation research and development activities for the previous fiscal year in each topic area;

(B) the amount of funding spent in each topic area;

(C) a description of the extent to which the research and development is meeting the expectations set forth in paragraph (2)(C)(ii); and

(D) any amendments to the strategic plan.

(b) ANNUAL REPORT.—The Secretary shall submit to appropriate committees of Congress an annual report, in conjunction with the President's annual budget request as set forth in section 1105 of title 31, describing the amount spent in the last completed fiscal year on transportation research and development and the amount proposed in the current budget for transportation research and development.

(c) NATIONAL RESEARCH COUNCIL REVIEW.—The Secretary shall enter into an agreement for the review by the National Research Council of the details of each—

(1) strategic plan under this section;

(2) performance plan required under section 1115 of title 31; and

(3) program performance report required under section 1116 of title 31, with respect to transportation research and development.

(Added Pub. L. 105-178, title V, §5108, June 9, 1998, 112 Stat. 435; amended Pub. L. 109-59, title V, §5208(a), Aug. 10, 2005, 119 Stat. 1798.)

#### REFERENCES IN TEXT

The date of enactment of the SAFETEA-LU, referred to in subsec. (a)(1), is the date of enactment of Pub. L. 109-59, which was approved Aug. 10, 2005.

#### PRIOR PROVISIONS

A prior section 508, added Pub. L. 90-495, §30, Aug. 23, 1968, 82 Stat. 833, related to highway relocation services, prior to repeal by Pub. L. 91-646, title II, §220(a)(10), Jan. 2, 1971, 84 Stat. 1903.

#### AMENDMENTS

2005—Pub. L. 109-59 amended section catchline and text generally, substituting provisions relating to development of a 5-year transportation research and development strategic plan, annual report, and review by the National Research Council, consisting of subsecs. (a) to (c), for provisions relating to establishment of a strategic planning process to determine transportation research and technology development priorities, implementation of programs, development of a strategic plan, merit review and performance measurement, procurement procedures, and requirement of consistency with section 306 of title 5 and sections 1115 and 1116 of title 31, consisting of subsecs. (a) to (f).

SURFACE TRANSPORTATION RESEARCH AND  
DEVELOPMENT PLANNING

Pub. L. 102-240, title VI, §6009, Dec. 18, 1991, 105 Stat. 2175, as amended by Pub. L. 104-59, title III, §338(c)(1), Nov. 28, 1995, 109 Stat. 604, provided that:

“(a) FINDINGS.—Congress finds that—

“(1) despite an annual expenditure in excess of \$10,000,000,000 on surface transportation and its infrastructure, the Federal Government has not developed a clear vision of—

“(A) how the surface transportation systems of the 21st century will differ from the present;

“(B) how they will interface with each other and with other forms of transportation;

“(C) how such systems will adjust to changing American population patterns and lifestyles; and

“(D) the role of federally funded research and development in ensuring that appropriate transportation systems are developed and implemented;

“(2) the population of the United States is projected to increase by over 30,000,000 people within the next 20 years, mostly in existing major metropolitan areas, which will result in increased traffic congestion within and between urban areas, more accidents, loss of productive time, and increased cost of transportation unless new technologies are developed to improve public transportation within cities and to move people and goods between cities;

“(3) 18,000,000 crashes, 4,000,000 injuries, and 45,000 fatalities each year on the Nation's highways are intolerable and substantial research is required in order to develop safer technologies in their most useful and economic forms;

“(4) current research and development funding for surface transportation is insufficient to provide the United States with the technologies essential to providing its own advanced transportation systems in the future and, as a result, the United States is becoming increasingly dependent on foreign surface transportation technologies and equipment to meet its expanding surface transportation needs;

“(5) a more active, focused surface transportation research and development program involving cooperation among the Federal Government, United States based industry, and United States universities should be organized on a priority basis;

“(6) intelligent transportation systems represent the best near-term technology for improving surface transportation for public benefit by providing equipment which can improve traffic flow and provide for enhanced safety;

“(7) research and development programs related to surface transportation are fragmented and dispersed throughout government and need to be strengthened and incorporated in an integrated framework within which a consensus on the goals of a national surface transportation research and development program must be developed;

“(8) the inability of government agencies to cooperate effectively, the difficulty of obtaining public support for new systems and rights-of-way, and the high cost of capital financing discourage private firms from investing in the development of new transportation equipment and systems; therefore, the Federal Government should sponsor and coordinate research and development of new technologies to provide safer, more convenient, and affordable transportation systems for use in the future; and

“(9) an effective high technology applied research and development program should be implemented quickly by strengthening the Department of Transportation research and development staff and by contracting with private industry for specific development projects.

“(b) SURFACE TRANSPORTATION RESEARCH AND DEVELOPMENT PLAN.—

“(1) DEVELOPMENT.—The Secretary shall develop an integrated national surface transportation research and development plan (hereinafter in this subsection referred to as the ‘plan’).

“(2) FOCUS.—The plan shall focus on surface transportation systems needed for urban, suburban, and rural areas in the next decade.

“(3) CONTENTS.—The plan shall include the following:

“(A) Details of the Department's surface transportation research and development programs, including appropriate funding levels and a schedule with milestones, preliminary cost estimates, appropriate work scopes, personnel requirements, and estimated costs and goals for the next 3 years for each area of research and development.

“(B) A 10-year projection of long-term programs in surface transportation research and development and recommendations for the appropriate source or mechanism for surface transportation research and development funding, taking into account recommendations of the Research and Development Coordinating Council of the Department of Transportation and the plan of the National Council on Surface Transportation Research.

“(C) Recommendations on changes needed to assure that Federal, State, and local contracting procedures encourage the adoption of advanced technologies developed as a consequence of the research programs in this Act [Pub. L. 102-240, see Tables for classification].

“(4) OBJECTIVES.—The plan shall provide for the following:

“(A) The development, within the shortest period of time possible, of a range of technologies needed to produce convenient, safe, and affordable modes of surface transportation to be available for public use beginning in the mid-1990's.

“(B) Maintenance of a long-term advanced research and development program to provide for next generation surface transportation systems.

“(5) COOPERATION WITH INDUSTRY.—A primary component of the plan shall be cooperation with industry in carrying out this part [part A (§§6001-6024) of title VI of Pub. L. 102-240, enacting sections 325 and 326 of this title, sections 3711b and 3711c of Title 15, Commerce and Trade, section 111 of Title 49, Transportation, and section 1625 of former Title 49, Transportation, amending sections 204, 307, and 321 of this title, section 5316 of Title 5, Government Organization and Employees, sections 3708 and 3712 to 3715 of Title 15, sections 101 and 301 of Title 49, and sections 1607c and 1608 of former Title 49, enacting provisions set out as notes under sections 101, 112, and 307 of this title and sections 111 and 301 of Title 49, and amending provisions set out as notes under section 1608 of former Title 49] and strengthening the manufacturing capabilities of United States firms in order to produce products for surface transportation systems.

“(6) CONFORMANCE WITH PLAN.—All surface transportation research and development within the Department of Transportation shall be included in the plan and shall be evaluated in accordance with the plan.

“(7) COORDINATION.—In developing the plan and carrying out this part, the Secretary shall consult with and, where appropriate, use the expertise of other Federal agencies and their laboratories.

“(8) TRANSMITTAL.—On or before January 15, 1993, and annually thereafter, the Secretary shall transmit the plan to Congress, together with the Secretary's comments and recommendations. The Secretary shall review and update the plan before each transmittal under this paragraph.

“(9) RECOMMENDATIONS FOR ALTERNATIVES.—In the event a different technology or alternative program can be identified that would accomplish the same or better results than those described in this part, the Secretary may make recommendations for an alternative, and shall promptly report such alternative recommendations to Congress.”

### § 509. National cooperative freight transportation research program

(a) **ESTABLISHMENT.**—The Secretary shall establish and support a national cooperative freight transportation research program.

(b) **AGREEMENT.**—The Secretary shall enter into an agreement with the National Academy of Sciences to support and carry out administrative and management activities relating to the governance of the national cooperative freight transportation research program.

(c) **ADVISORY COMMITTEE.**—The National Academy of Sciences shall select an advisory committee consisting of a representative cross-section of freight stakeholders, including the Department of Transportation, other Federal agencies, State transportation departments, local governments, nonprofit entities, academia, and the private sector.

(d) **GOVERNANCE.**—The national cooperative freight transportation research program established under this section shall include the following administrative and management elements:

(1) **NATIONAL RESEARCH AGENDA.**—The advisory committee, in consultation with interested parties, shall recommend a national research agenda for the program. The agenda shall include a multiyear strategic plan.

(2) **INVOLVEMENT.**—Interested parties may—

(A) submit research proposals to the advisory committee;

(B) participate in merit reviews of research proposals and peer reviews of research products; and

(C) receive research results.

(3) **OPEN COMPETITION AND PEER REVIEW OF RESEARCH PROPOSALS.**—The National Academy of Sciences may award research contracts and grants under the program through open competition and merit review conducted on a regular basis.

(4) **EVALUATION OF RESEARCH.**—

(A) **PEER REVIEW.**—Research contracts and grants under the program may allow peer review of the research results.

(B) **PROGRAMMATIC EVALUATIONS.**—The National Academy of Sciences may conduct periodic programmatic evaluations on a regular basis of research contracts and grants.

(5) **DISSEMINATION OF RESEARCH FINDINGS.**—The National Academy of Sciences shall disseminate research findings to researchers, practitioners, and decisionmakers, through conferences and seminars, field demonstrations, workshops, training programs, presentations, testimony to government officials, the World Wide Web, publications for the general public, and other appropriate means.

(e) **CONTENTS.**—The national research agenda required under subsection (d)(1) shall include research in the following areas:

(1) Techniques for estimating and quantifying public benefits derived from freight transportation projects.

(2) Alternative approaches to calculating the contribution of truck and rail traffic to congestion on specific highway segments.

(3) The feasibility of consolidating origins and destinations for freight movement.

(4) Methods for incorporating estimates of international trade into landside transportation planning.

(5) The use of technology applications to increase capacity of highway lanes dedicated to truck-only traffic.

(6) Development of physical and policy alternatives for separating car and truck traffic.

(7) Ways to synchronize infrastructure improvements with freight transportation demand.

(8) The effect of changing patterns of freight movement on transportation planning decisions relating to rest areas.

(9) Other research areas to identify and address emerging and future research needs related to freight transportation by all modes.

(f) **FUNDING.**—

(1) **FEDERAL SHARE.**—The Federal share of the cost of an activity carried out under this section shall be up to 100 percent.

(2) **USE OF NON-FEDERAL FUNDS.**—In addition to using funds authorized for this section, the National Academy of Sciences may seek and accept additional funding sources from public and private entities capable of accepting funding from the Department of Transportation, States, local governments, nonprofit foundations, and the private sector.

(3) **PERIOD OF AVAILABILITY.**—Amounts made available to carry out this section shall remain available until expended.

(Added Pub. L. 109–59, title V, § 5209(a), Aug. 10, 2005, 119 Stat. 1800.)

#### PRIOR PROVISIONS

A prior section 509, added Pub. L. 90–495, § 30, Aug. 23, 1968, 82 Stat. 833, related to relocation assistance programs on Federal highway projects, prior to repeal by Pub. L. 91–646, title II, § 220(a)(10), Jan. 2, 1971, 84 Stat. 1903.

#### MOTOR CARRIER EFFICIENCY STUDY

Pub. L. 109–59, title V, § 5503, Aug. 10, 2005, 119 Stat. 1821, provided that:

“(a) **IN GENERAL.**—The Secretary [of Transportation], in coordination with the motor carrier and wireless technology industry, shall conduct a study to—

“(1) identify inefficiencies in the transportation of freight;

“(2) evaluate the safety, productivity, and reduced cost improvements that may be achieved through the use of wireless technologies to address the inefficiencies identified in paragraph (1); and

“(3) conduct, as appropriate, field tests demonstrating the technologies identified in paragraph (2).

“(b) **PROGRAM ELEMENTS.**—The program shall include, at a minimum, the following:

“(1) Fuel monitoring and management systems.

“(2) Radio frequency identification technology.

“(3) Electronic manifest systems.

“(4) Cargo theft prevention.

“(c) **FEDERAL SHARE.**—The Federal share of the cost of the study under this section shall be 100 percent.

“(d) **ANNUAL REPORT.**—The Secretary [of Transportation] shall prepare and submit to Congress an annual report on the programs and activities carried out under this section.

“(e) **FUNDING.**—Of the amounts made available under section 5101(a)(1) of this Act [119 Stat. 1779], the Secretary [of Transportation] shall make available \$1,250,000 to the Federal Motor Carrier Safety Administration for each of fiscal years 2006 through 2009 to carry out this section.”